



6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 4

[PS Docket No. 15-80; FCC 15-39]

Amendments to the Commission's Rules Concerning Disruptions to Communications

AGENCY: Federal Communications Commission.

ACTION: Proposed rule.

SUMMARY: In this document, the Commission seeks comment on proposals to improve its rules governing the reporting of disruptions to communications. The proposals contained in this document seek to build on the Commission's decade of experience administering these rules and the associated Network Outage Reporting System (NORS). This experience has provided perspective on aspects of the rules that could be refined so as to improve the quality and utility of the outage reporting data the Commission receives. Improving the reporting that occurs under the Commission's rules will advance the Commission's efforts to monitor the reliability and resiliency of the nation's communications networks, including 911 networks, and to address systemic vulnerabilities and threats to the communications infrastructure.

DATES: Submit comments on or before **[INSERT 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, and reply comments on or before **[45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Written comments on the Paperwork Reduction Act proposed information collection requirements must be submitted by the public, Office of Management and Budget (OMB), and other interested

parties on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by PS Docket No. 15-80, by any of the following methods:

- Federal Communications Commission's Web Site: <http://fjallfoss.fcc.gov/ecfs2/>. Follow the instructions for submitting comments.
- People with Disabilities: Contact the FCC to request reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) by e-mail: FCC504@fcc.gov or phone: 202-418-0530 or TTY: 202-418-0432.

For detailed instructions for submitting comments and additional information on the rulemaking process, see the SUPPLEMENTARY INFORMATION section of this document. In addition to filing comments with the Secretary, a copy of any comments on the Paperwork Reduction Act information collection requirements contained herein should be submitted to the Federal Communications Commission via email to PRA@fcc.gov and to Nicholas A. Fraser, Office of Management and Budget, via email to [Nicholas A. Fraser@omb.eop.gov](mailto:Nicholas_A.Fraser@omb.eop.gov) or via fax at 202-395-5167.

FOR FURTHER INFORMATION CONTACT: Brenda D. Villanueva, Attorney Advisor, Public Safety and Homeland Security Bureau, (202) 418-7005 or brenda.villanueva@fcc.gov.

For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, send an email to PRA@fcc.gov or contact Nicole On'gele, (202) 418-2991.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Notice of Proposed Rulemaking in PS Docket No. 15-80, released on March 30, 2015. The complete text

of this document is available for public inspection and copying from 8 a.m. to 4:30 p.m. ET Monday through Thursday or from 8 a.m. to 11:30 a.m. ET on Fridays in the FCC Reference Information Center, 445 12th Street SW., Room CY-A257, Washington, DC 20554. In addition, the complete text is available online <http://www.fcc.gov/document/fcc-adopts-part-4-improvements-item>.

This document contains proposed information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. Public and agency comments are due **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Comments should address: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and (e) way to further reduce the information collection burden on small business concerns with fewer than 25 employees. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), we seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

To view a copy of this information collection request (ICR) submitted to OMB: (1) go to the

web page <http://www.reginfo.gov/public/do/PRAMain>, (2) look for the section of the Web page called "Currently Under Review," (3) click on the downward-pointing arrow in the "Select Agency" box below the "Currently Under Review" heading, (4) select "Federal Communications Commission" from the list of agencies presented in the "Select Agency" box, (5) click the "Submit" button to the right of the "Select Agency" box, (6) when the list of FCC ICRs currently under review appears, look for the Title of this ICR and then click on the ICR Reference Number. A copy of the FCC submission to OMB will be displayed.

OMB Control Number: 3060-0484.

Title: Section 4.9, Part 4 of the Commission's Rules Concerning Disruptions to Communications.

Form No.: Not applicable.

Type of Review: Revision of currently approved collection.

Respondents: Business or other for-profit; not-for-profit institutions.

Number of Respondents and Responses: 1,100 Respondents; 15,783 Responses.

Estimated Time Per Response: 2 – 2.5 hours.

Frequency of Response: On occasion and annual reporting requirements, recordkeeping requirement and third party disclosure requirement.

Obligation to Respond: Mandatory.

Statutory authority for this collection of information is contained in 47 U.S.C. sections 151, 154(i)-(j) & (o), 201(b), 214(d), 218, 251(e)(3), 301, 303(b), 303(g), 303(r), 307, 309(a), 316, 332, 403, 615a-1, and 615c.

Total Annual Burden: 30,548 hours.

Total Annual Costs: None.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: Collected information is afforded a presumption of confidential treatment under section 4.2 of the Commission's rules.

Synopsis of Notice of Proposed Rulemaking

In this document, the Federal Communications Commission (Commission) seeks comment on proposals to update its part 4 outage reporting rules. In doing so it seeks to apply a decade of experience administering the part 4 rules and the associated Network Outage Reporting System, which has improved the Commission's ability to detect adverse outage trends and facilitate industry-wide network improvements. Our primary goal remains ensuring the reliability and resiliency of the Nation's communications system, and in particular strengthening the Nation's 911 system.

In a companion document, a Second Report and Order and Order on Reconsideration in ET Docket No. 04-35, the Commission resolves several outstanding matters related to its adoption of the part 4 rules in a Report and Order in 2004. This includes disposing of seven pending Petitions for Reconsideration (Petitions). Some of the issues raised in some of these Petitions, as well as in their responsive pleadings, are incorporated into proposals considered in this NPRM. The portions of these pleadings that present substantive arguments on such issues are incorporated into the record of this proceeding.

I. NOTICE OF PROPOSED RULEMAKING

A. Costs and Benefits

1. We seek comment on the potential costs and benefits associated with each proposal considered below. As a general matter, we seek to determine the most cost-effective approach for modifying existing policies and practices to achieve the goals of our proposed rules. We ask that commenters provide specific data and information, such as actual or estimated dollar figures,

including a description of how the data or information was calculated or obtained and any supporting documentation. Vague or unsupported assertions regarding costs or benefits generally will receive less weight and be less persuasive than more specific and supported statements.

2. Some of the proposals advanced today would likely increase the number of reports, and some would likely decrease the number of reports. We estimate that, overall, adoption of the proposed rules may result in the filing of a total of 339 additional reports industry-wide per year, representing a \$54,240 cost increase. This net cost increase is the sum of a \$526,560 in cost increases and \$472,320 in cost reductions. The projected cost increases are associated with proposed requirements for reporting outages that significantly degrade 911 communications (\$1,600); radio access network overload events in wireless networks (\$67,200); simplex outages that persist forty-eight hours or longer (\$163,200); and wireless outages in rural areas based on geographic impact (\$294,560). The cost reductions are associated with proposals to raise the threshold for reporting major facility outages (\$453,600) and to clarify when airport-related outages are subject to reporting (\$18,720). We project that other proposals contained in the NPRM will not have an appreciable cost impact. Given the breadth of industry sectors subject to Part 4, we believe this estimated total cost impact to be de minimis, and, in any event, significantly outweighed by the benefits to the public interest from adopting these changes. The modest proposals set forth in this NPRM will improve the Commission's ability to fulfill its statutory mission and inform policymaking, such as the Commission's efforts to safeguard the public safety attributes of networks as critical communications transition to Internet Protocol-based platforms. In addition, we expect that adoption of the proposed rules will enhance the Commission's effective coordination with the Department of Homeland Security (DHS) and other federal agencies on matters of national security and emergency preparedness, response, and recovery. We seek comment on whether, or to what extent, the proposed rule changes below

will help the Commission achieve these goals.

B. Call Failures

3. Reporting of Outages that Significantly Degrade Communications to PSAP(s).

We first seek comment on whether to amend our rules to clarify the circumstances under which degradation of communications to a PSAP constitutes a reportable outage under section 4.9(e)(1) of our rules. Some providers may be interpreting this provision narrowly to require reporting only when there is a complete, i.e., when a PSAP is rendered unable to receive any 911 calls for a long enough period to meet the reporting threshold. Under this interpretation, a failure or degradation that prevents hundreds or even thousands of 911 calls from completing might fail to qualify as a reportable outage if some 911 calls continued to reach the PSAP throughout the event. We believe that such a narrow reading of the provision is not consistent with the intent of the Part 4 outage reporting process and that the rule should not be left open to this interpretation during an event that debilitates 911 service. In adopting Part 4 in 2004, the Commission defined a reportable outage to include a significant degradation.

4. A network malfunction or higher level issue that prevents large numbers of 911 calls from completing certainly disrupts service in a manner that endangers public safety, irrespective of whether any PSAP has suffered a complete loss of ability to receive 911 calls. Moreover, requiring reporting under such circumstances would permit systematic analysis of the conditions that lead to these degradations and help reveal potential solutions. Without the benefits of such reporting, the Commission may not have sufficient, timely information to address serious incidents of this magnitude.

5. Accordingly, we propose revising section 4.5(e)(1) to clarify that any network malfunction or higher-level issue that significantly degrades or prevents 911 calls from being completed constitutes a “loss of communications to PSAP(s),” regardless of whether the PSAP is rendered completely unable to receive 911 calls. We seek comment on this proposed

clarification. How would a provider determine the need to report an outage that results only in a partial “loss of communications” to a PSAP? Should the provider simply calculate user minutes potentially affected as it would for a complete loss of communications, and then multiply that figure by the percentage of PSAP communications capacity that has been “lost” to determine whether the 900,000 user minutes threshold has been reached? Is the percentage of lost capacity equivalent to the percentage of trunks serving a PSAP that have been disabled, or are there factors (e.g., built-in redundancy) that complicate the relationship between these parameters? Should a “loss of communications to PSAP(s)” be defined to include only “losses” that exceed a certain magnitude? For instance, should we specify that a “loss of communications” to a PSAP occurs only when at least 80 percent of the trunks serving a PSAP are disabled? As another possibility, should we consider establishing a separate reporting threshold based on the number of 911 calls that actually fail to be completed as the result of an outage? If so, should we set a uniform numerical threshold, or should the threshold be relative to the number of users a PSAP serves? Should the Commission require reporting of any outage of at least thirty minutes’ duration that exceeds some threshold level of impairment to the communications capabilities of any PSAP, irrespective of the number of user minutes potentially affected? If so, how should the Commission define such a threshold? Are there other metrics and thresholds the Commission should consider that could better capture this type of degradation in the ability to complete 911 calls? What are the potential advantages and disadvantages of any such alternatives?

6. We also seek comment on the costs and benefits of the various measures mentioned above. Even assuming that the measures would expand reporting obligations, we do not believe that any such measures would have a substantial cost impact. Over the previous three years, the Commission has been made aware of only a handful of events that appear to have

produced a “significant degradation in communications to a PSAP(s)” without resulting in a complete loss of such communications. For purposes of estimating reporting costs, we could treat those years as a best case scenario and instead posit that as many as ten such events a year would be reportable were we to adopt any of the various measures considered above. Assuming further that each reportable event requires two hours of staff time to report, at eighty dollars per hour, we conclude that adoption of any of the considered measures would result in a total cost increase of \$1,600 per year. The two-hour estimate, which we use throughout this document, includes the time necessary to file the notification, initial report and final report. These estimates were developed in 2004 during the process to obtain approval for the information collection associated with the original Part 4 rules and were subject to public comment both then and at periodic intervals since to renew the collection authorization. We believe these estimates remain valid, especially in light of both advances in information technology that have permitted providers to streamline processes and providers’ increasing familiarity with the NORS outage reporting process. We seek comment on the foregoing analysis, including the assumptions used to arrive at the cost estimate and the extent to which these estimates appropriately reflect the costs associated with reporting. Interested parties should include information regarding whether the submission process (i.e., time to fill out the form, review by management and filing) takes two hours. We also seek comment as to whether we could achieve our objectives in a less costly, less burdensome, or more efficient manner. Finally, we clarify that our proposals in this NPRM do not prejudice any issue the Commission may take up in another docket or proceeding to address the reliability of 911 service.

7. Call Failures in the Wireless Access Network. We next seek comment on the reporting of wireless call failures that result from congestion in the access network, a problem

often encountered during emergencies. In particular, the inability of a radio access network (RAN) to support excess demand for radio channels may not constitute a reportable “failure or degradation” under our current rules, yet pervasive call failures undermine the reliability of networks for consumers regardless of their cause. Because this appears to be predominantly an issue with wireless networks, we propose to amend our part 4 rules to require the reporting of systemic wireless call failures that result from RAN overloading. In doing so we note that the Commission already requires reporting of interexchange carrier (IXC) and local exchange carrier (LEC) tandem facility outages of at least thirty minutes’ duration in which 90,000 or more calls are blocked.

8. Such failures appear to be most prevalent during and in the immediate aftermath of major disasters, when call volume is particularly heavy. To provide a more complete understanding of the problem, we seek comment on the failure rate of wireless calls. How often and under what circumstances do wireless calls fail in RANs? How different is that failure rate from the rate experienced during ordinary circumstances? How different is that from failure rates in wireline networks – including both TDM and IP-based networks – in both extraordinary (e.g., during or immediately after a weather event) and typical circumstances? How often and with what impact is “load shedding” applied whereby a provider intentionally decreases network functionality to allocate available resources to the most critical functions?

9. We also seek comment on ways to measure the customer impact of call failures caused by RAN congestion. The most obvious potential metric is percent of calls failed. Is there a surrogate metric more readily attainable that can provide the Commission with similar information? What are the relative strengths and weaknesses of each metric? What would be the appropriate reporting threshold? Are there alternative ways of defining the reporting threshold

that would generate more useful information without imposing unreasonable burdens on reporting entities? Are there other indicators the Commission could track that would help it better understand the network dynamics that prevent a wireless network from effectively handling calls once a certain saturation point is reached? Are these indicators likely to vary depending on the technology used to provide service?

10. We also seek comment on the costs, burdens and benefits of requiring providers to report widespread call failures in wireless RANs. To estimate these costs, we first assume that wireless access networks and interoffice networks are engineered to achieve comparably low rates of call failure (i.e., blocked calls). We base this assumption on the fact that the nation's communications networks are vastly interdependent, which we believe could encourage the implementation of similarly robust parameters across networks, e.g., call blocking monitoring and measuring. This leads us to assume that these two types of networks have a comparable rate of calls blocked and, therefore, would have a comparable number of outage reports. We seek comment on these assumptions. As the Commission receives approximately 420 reports per year of interoffice facility outages, we estimate that adoption of the proposed requirement would result in the filing of an additional 420 reports per year. Assuming further that two hours of staff time are necessary to file the reports on each outage, at eighty dollars per hour, we tentatively conclude that the adoption of the requirement would result in an annual increase of \$67,200 in reporting costs. We also assume that providers are already technically capable of tracking call failures at each cell site, and that they do so as a matter of practice, and they thus would not incur additional costs in tracking reportable outages under the proposed rule. We seek comment on this cost estimate, including its underlying assumptions. We believe these costs would be outweighed by the concomitant benefits of improved Commission awareness of the frequency

and impact of RAN-overload events on wireless customers, and of providing the Commission with greater understanding about the overall health of the nation's networks and, thereby, the ability to work with industry toward improved reliability and situational awareness goals to ultimately achieve and sustain more reliable and resilient communications networks.

11. Call Failures in the Non-Wireless Access Network. The Commission's rules also do not require reporting on widespread call blockages in the non-wireless local access network to the extent such events involve no "failure or degradation" of the network. We seek comment on whether the Commission should impose similar reporting requirements on these types of outages. If so, how should such requirements be defined, and what costs and benefits would attend their adoption? Is there evidence that congestion in the access portion of a wireline network causes significant amount of calls to fail?

C. Major Transport Facility Outages

1. Appropriate Metric and Threshold

12. The Commission requires reporting of "failures of communications infrastructure components having significant traffic-carrying capacity." Based on our analysis of NORS data, it appears that an increasing proportion of the outages reported under the current DS3-based standard are minor disruptions unlikely to have a significant impact on communications or jeopardize public safety. Accordingly, we seek comment on whether upward adjustment of the reporting threshold for transport facility outages could reduce reporting burdens while preserving the Commission's ability to obtain critical information about communications reliability.

13. In its Petition, Qwest (now CenturyLink) argued that the outage reporting threshold should be defined in terms of impact on "OCn"- level circuits (i.e., optical circuits such as OC1 and OC3) rather than DS3 circuits. Alternatively, Qwest argues that the Commission

should require reporting of DS3 outages only on a quarterly basis.

14. In the years since the part 4 rules were adopted and Qwest filed its petition, the industry has come to rely more heavily on circuits larger than the DS3, including OCn-level circuits, for transport of communications traffic. We thus believe it may be appropriate to express the reporting threshold for transport facility outages in terms of impact on higher capacity circuits. In particular, we propose to define the threshold in terms of “OC3 minutes”, i.e., based on impact on OC3 circuits or other circuits or aggregations of circuits that provide equal or greater capacity. We believe that expression of the outage threshold in “OC3 minutes” may better indicate the magnitude of network outages to which the part 4 rules were designed to apply. We seek comment on this proposal.

15. We further seek comment on raising the reporting threshold to account for changes in how networks are scaled and designed. The current threshold of 1,350 DS3 minutes—which is equivalent to 450 OC3 minutes—was selected, consistent with our goals of technological neutrality, to match the 900,000 user minutes threshold put in place for voice-grade services, based on a calculation of 667 voice-grade users per DS3. Yet, as communications services transition to more advanced technologies, greater capacity often carries the same number of users. In the emerging VoIP environment, we believe that 450 voice-grade equivalent users is a better estimate of the carrying capacity of a single DS3, based on our recent estimate that a single VoIP call requires 100 kbps of bandwidth. This would mean that, to retain equivalency with the 900,000 user minutes threshold, the major facilities outage threshold should be adjusted to 2,000 DS3 minutes—or 667 OC3 minutes. We seek comment on this analysis and on the resultant proposal.

16. We also seek comment on the cost savings that would accrue from this proposal.

We observe that there were 2,208 major transport facility outages reported in 2013 that did not affect OC3-grade or equivalent circuits, and an additional 627 that did not exceed 667 OC3 minutes. We accordingly believe that the proposed changes to the reporting requirements for major transport facility outages could reduce the number of associated reports filed each year by as many as 2,835. Assuming that each such report would have required two staff hours to complete, at eighty dollars per hour, we conclude that the proposed adjustments of the reporting threshold for major facility outages would reduce reporting costs by \$453,600. We seek comment on this cost analysis and its underlying assumptions.

2. Simplex Outage Reporting

17. A simplex event occurs when circuits that are configured with built-in path protection, as when arranged in a protection scheme such as a Synchronous Optical Network (SONET) ring, lose one of the paths. Under such configurations, when one of the circuits fails, traffic is diverted to a back-up circuit or “protect path,” and a “simplex event” has occurred. We propose to shorten from five days to 48 hours the reporting timeframe for this type of event. While above we propose to revise the metric for reporting major facility outages from DS3-based to OC3-based, we now address the independent concern of the appropriate time frame for reporting simplex events on major network facilities, regardless of whether measured as DS or OC.

18. When it adopted the part 4 rules the Commission rejected a proposal to exempt “simplex events” from the reach of these requirements and determined that such events would constitute reportable outages. The Commission reasoned that, although such events do not immediately result in any loss of communications, they eliminate redundancies that prevent major losses of communications from occurring and provide valuable insight into the actual

resiliency of critical networks. The Commission later issued a Partial Stay Order that granted a stay of this requirement as to outages that persist for less than five days. In issuing this partial stay, the Commission contemplated “developing a full record” on this issue, including on the costs that providers would incur in complying with the rule as originally adopted.

19. Some Petitioners argue that it is overly burdensome to report simplex events. In its response to the Petitions, the National Association of State Utility Consumer Advocates (NASUCA) argued that circuits are “critical” for commerce and national defense, including, “Federal Reserve, ATM and other bank and commercial transactions, FAA flight controls, [and] the Defense Department[.]” and that simplex outages should thus be reported.

20. Because simplex events are typically scheduled for repair during daily maintenance cycles as Petitioners suggest, such outages should generally be rectified within twenty-four to forty-eight hours in the normal course of business. Neglecting to address simplex outages within forty-eight hours of their discovery would thus contravene an established industry best practice. Recent years have witnessed an increase in the reporting of simplex outages, even under the relaxed, five-day standard set forth in the Partial Stay Order, wherein the Commission conceded that five days for repair of a simplex outage may be tolerable “[i]n the worst case scenario.” This suggests that the best practice is not being followed.

21. In light of these observations, we propose improving our reporting requirements for simplex events to require reporting of any such event not rectified within forty-eight hours of its discovery as a reportable outage. We seek comment on the choice of forty-eight hours after discovery of a reportable outage as the point at which providers must report the outage. Are providers correct in asserting that the vast majority of these outages are likely to be repaired within a forty-eight-hour window and thus would remain exempt from reporting? How common

are outages that last longer than forty-eight hours but shorter than five days after they are discovered as reportable outages? Do the outages that persist longer than five days tend to be particularly large in scope or difficult to repair? Is there an alternative threshold for the reporting of simplex events that the Commission should consider? If so, what is the threshold and what are its advantages?

22. We also seek comment on whether, and to what extent, reducing the reporting threshold from five days to forty-eight hours would increase costs on providers. We believe that this proposed change would create incentives for providers to repair simplex outages in a timelier manner, without imposing an undue cost burden. We would expect that adoption of this proposal would increase the number of reportable events, given that there are likely a number of simplex events that exceed the shorter 48 hour threshold proposed in this Notice of Proposed Rulemaking, but do not exceed the longer 5-day threshold currently in the Commission's rules. We propose a proportional estimate that the shortened reporting window threshold would double the number of simplex outages subject to reporting, this would amount to an increase of approximately 1,250 reports per year. However, the proposed change from DS3 to OC3-based reporting for major network transport facility outages would reduce the number of simplex-based reports because events affecting a small number of DS3s would no longer be reportable. Assuming that we reduce the simplex reporting window threshold from five days to 48 hours, and adopt OC3 as the metric threshold, we estimate these conditions combined will result in an estimated 1,020 additional outage reports. (We calculate 1,020 reports = 1,250 additional DS3-based reports due to reduction to 48 hours threshold – 230 reports only affecting one or two DS3s. We base this calculation on the 230 outage reports previously received by the Commission in 2013, for events affecting one or two DS3s.) Assuming further that two staff

hours required to file each report, at eighty dollars per hour, this increase in the number of filed reports would carry with it an increased cost of \$163,200. We believe these costs would be outweighed by the concomitant benefits of improved Commission awareness of the extent of industry best practices implementation in this area, and of providing the Commission's with greater understanding about the overall health of the nation's networks and, thereby, the ability to work with industry toward improved reliability and situational awareness goals to ultimately achieve and sustain more reliable and resilient communications networks. We seek comment on this analysis and its underlying assumptions.

D. Wireless Outage Reporting Metrics

23. Reporting Wireless Outages Generally. We have observed over the last several years that wireless providers use different methods to calculate the number of users "potentially affected" by an outage, and we seek to find a uniform method of calculating this number that can be used by all reporting wireless providers, regardless of underlying technology. Wireless service providers in particular are directed to calculate this number "by multiplying the simultaneous call capacity of the affected equipment by a concentration ratio of 8," which is based on "the generic parameters that are routinely used in basic telecommunications traffic analysis." This measurement of call capacity is undertaken at the mobile switching center (MSC), which avoids the "computational difficulties" of directly measuring outages within the more dynamic radiofrequency (RF) portion of the network. However, as wireless technologies have continued to evolve, providers implementing different technologies have employed various methods of measuring the call capacity of their MSCs for purposes of outage reporting. Based on our analysis of the data, it appears that this variation among providers and technologies has led to inconsistencies in reporting that may compromise the Commission's ability to reliably

detect wireless network outage trends. The lack of a clear and consistent process for measuring and reporting wireless outages also undermines the technology neutrality that lies at the heart of the part 4 rules.

24. In light of these observations, we propose adopting a more standardized, technology neutral method for calculating the number of users “potentially affected” by a wireless network outage. We seek comment on two options.

25. First, the wireless provider could calculate the total number of users potentially affected by an outage by multiplying the number of cell sites disabled as part of the outage by the average number of users it serves per site, assuming for purposes of the calculation that each user is served by a single site and site assignments are distributed evenly throughout the provider’s network. Alternatively, a wireless provider could determine by reference to its Visitor Location Register the actual number of users that were being served at each affected cell site when the outage commenced. We seek comment on the strengths and weaknesses of each of these calculation methods. How significantly would adoption of either proposed method affect current reporting practices? Are either or both methods preferable to the variety of methods used by providers to measure “simultaneous call capacity” under the existing rule? What are the drawbacks or limitations of each proposed method? Are there ways of modifying either method to improve its utility? Would adoption of either method unduly favor certain network technologies or deployment configurations over others? Is either method more technology neutral than the other? We also seek comment on the costs and benefits that would attend adoption of either calculation method. We do not believe that adoption of either proposed calculation would have an appreciable cost impact. We seek comment on this assumption.

26. Finally, we seek comment on whether to adopt a separate and additional wireless

outage reporting requirement based on the geographical scope of an outage, irrespective of the number of users potentially affected. We believe that doing so could provide the Commission with valuable information on the reliability of wireless service in less densely populated areas. As the percentage of calls to 911 from wireless devices continues to increase, the negative impact to the public from large geographic areas losing wireless coverage for emergency calls grows in significance. We seek comment on these observations. Were the Commission to adopt a geography-based reporting requirement for wireless outages, how should it define the threshold? Should providers be required to report any outage that disrupts service over a specified percentage (e.g., 5 percent) of the provider's advertised coverage footprint or some more granular level (e.g., at the State, county, or zip code)?

27. We also seek comment on the costs and benefits that would attend adoption of a geography-based reporting threshold. To estimate the cost of a potential, new geographic-based reporting threshold, we need to estimate the number of additional reports that would be filed under such a threshold. We estimate this number as (1) the number of additional outage reports that would be generated by geography-based reporting (2) minus the number of reports that would be submitted for outages that meet the current 900,000 user-minute threshold. For this purpose and based on our experience reviewing a decade's worth of outage data, we estimate that geography-based reporting would generate additional reports in counties where a company has fifteen or fewer cell sites. The number of counties with fifteen or fewer cell sites represents 2.7 percent of the total number of cell sites nationwide. Using as a guide counties with fifteen or fewer cell sites, a disruption to communications would be reportable under a geographic coverage standard if one or two cell sites in the county are down. We next estimate, based on historical NORS data, that each cell site has a 22.6 percent chance of experiencing an outage

within a given year. Finally, we adopt CTIA's estimate that 301,779 cell sites were in operation nationwide as of the end of 2012. Based on these data, we conclude that adoption of a geography-based reporting requirement would likely result in the filing of 1,841 additional reports per year. Assuming that two staff hours are required to file each report, at eighty dollars per hour, we further conclude that the additional reporting would carry with it a \$294,560 cost burden. We believe these costs would be outweighed by the concomitant benefits of improved reporting on wireless outages in less-populated areas, and of providing the Commission's with greater understanding about the overall health of the nation's networks and, thereby, the ability to work with industry toward improved reliability and situational awareness goals to ultimately achieve and sustain more reliable and resilient communications networks. Are there steps the Commission could take to reduce the reporting burden associated with such a requirement?

28. Estimating the Number of "Potentially Affected" Wireless Users for Outages Affecting a PSAP. A reportable outage affecting a 911 special facility—or PSAP—occurs, inter alia, whenever: (1) there is a loss of communications to a PSAP potentially affecting at least 900,000 user-minutes; (2) the outage is not at the PSAP; (3) a complete reroute is not possible; and (4) the outage lasts 30 minutes or more. In its Petition for Reconsideration, Sprint requests clarification of section 4.9(e)(5), arguing that "if an outage affects only one of the subtending PSAPs, only those customers whose calls would have been routed to such PSAP would potentially be affected." Sprint requests that wireless providers be permitted to divide the capacity of the Mobile Switching Center (MSC), as defined in the rule, by the number of subtending PSAPs in order to more accurately estimate the number of end users potentially affected by an outage affecting a given PSAP. T-Mobile supported Sprint's proposal.

29. We propose a slightly modified version of Sprint's proposal. Rather than have

providers divide capacity equally among subtending PSAPs in order to calculate numbers of users potentially affected, we propose that capacity be allocated to each PSAP in reasonable proportion to its size in terms of number of users served. Thus, while Sprint's proposal would divide the capacity of the MSC evenly by the number of PSAPs, our proposal would base the allocation on the size of the subtending PSAP. We believe that this clarification would limit reporting to those significant outages that potentially impact public safety and for which the rules are intended. Moreover, this calculation method is consistent with what we observe to be the current reporting practice. We seek comment on this proposal. We also seek comment on any potential new burdens that would result from this clarification. We do not believe that adoption of the proposed modification would have an appreciable cost impact. We seek comment on this assumption.

E. Special Offices and Facilities

30. Identifying "Special Offices and Facilities." Part 4 requires various classes of communications providers to report outages that potentially affect "special offices and facilities," a term defined in section 4.5(b) to include "major military installations, key government facilities, nuclear power plants, and [relatively major airports]." It further states that National Communications System (NCS) member agencies will determine which of their facilities qualify as major military installations or key government facilities. Prior to the dissolution of the NCS in 2012, none of its member agencies provided any guidance as to which of their facilities should be included in these categories. In the wake of NCS's dissolution and the establishment of the Executive Committee on National Security and Emergency Preparedness Communications, we seek alternative means of identifying "special offices and facilities" for purposes of part 4.

31. We propose to classify as "special offices and facilities" those facilities enrolled

in or eligible for the Telecommunications Service Priority (TSP) program, which prioritizes the restoration and provisioning of circuits used by entities with National Security/Emergency Preparedness (NS/EP) responsibilities and duties. The TSP framework for restoring critical circuits comprises five priority levels, with levels 1 and 2 reserved for critical national security and military communications and the remaining levels dedicated to the protection of public safety and health and the continued functioning of the economy. TSP-enrolled facilities include military installations; federal cabinet-level department and agency headquarters; state governors' offices; Federal Reserve Banks; national stock exchanges; federal, state, and local law enforcement facilities; hospitals; airports; major passenger rail terminals; nuclear power plants; oil refineries; and water treatment plants.

32. We seek comment on this proposal. If the TSP framework is suitable for identifying "special offices and facilities," should the rule apply only to facilities enrolled in the program? If so, should there be a separate, free "outage reporting only" category created for facilities that are eligible for TSP but not otherwise enrolled? Should "special offices and facilities" instead be defined to include any facility that would be eligible for TSP? If so, how would a provider determine which of the facilities it serves are eligible for the program? In addition, if TSP eligibility or enrollment is used to define "special offices and facilities" under part 4, should facilities at all priority levels be included or only those at the highest levels? Should the rules expressly exempt providers from reporting any information about a TSP-enrolled facility that is protected under a confidentiality or non-disclosure agreement with a TSP participant? Are there ways in which the TSP framework is unsuitable as a basis for classifying "special offices and facilities"? For instance, are there critical facilities that would fail to qualify as "special offices and facilities" under this approach? If so, should we consider broadening the

scope of the definition to include facilities that are guaranteed priority restoration under “TSP-like” provisions in service-level agreements? Are there alternative classification frameworks that would be more suitable? We also request comment on the costs and benefits of these proposed options. We do not believe that redefining the term “special offices and facilities” as considered in this NPRM would have an appreciable cost impact. We seek comment on this assumption. Which means of defining the term “special offices and facilities” would strike the optimal balance between useful results and minimal costs to all parties? We expressly seek comment from our national security agencies on the types of communications sector critical infrastructure they believe should be included in such reporting.

33. Section 4.13. Section 4.13 directs special offices and facilities to report outages to the NCS, which may then forward the reported information to the Commission at its discretion. No such reports were ever forwarded to the FCC from the NCS prior to the latter’s dissolution in 2012. However, the Commission separately imposes requirements on communications providers to report outages that potentially affect “special offices and facilities” as that term is defined section 4.5. Accordingly, we propose deleting section 4.13 from our rules as redundant with respect to information that providers are already required to supply, and obsolete with respect to obligations regarding the NCS. We seek comment on this proposal. Would deleting this provision have any practical impact on the Commission’s ability to gather information about critical outages? Should the Commission establish a voluntary mechanism for operators of “special offices and facilities” to share information directly with the Commission about outages affecting their facilities? What benefits to network reliability and public safety might be realized were such reports filed directly with the Commission? Should the Commission encourage or require providers to report information regarding outages affecting “special offices

and facilities” to member agencies of the former NCS or to agencies that have absorbed NCS functions?

34. Airport Reporting Requirements. Section 4.5(b) defines “special offices and facilities” to include all airports listed as “current primary (PR), commercial service (CM), and reliever (RL) airports in the Federal Aviation Administration’s (FAA) National Plan of Integrated Airports Systems (NPIAS).” In its Petition, Sprint asks the Commission to clarify that outages that “potentially affect” such airports (and are thereby reportable under various subsections of section 4.9 of the rules) are classified as such only to the extent they have a potential impact on critical communications. Such an interpretation is consistent with language proposed but not adopted in the Part 4 rulemaking proceeding, under which an outage potentially affecting an airport would have been defined as one that: (i) disrupts 50 percent or more of the air traffic control links or other FAA communications links to any airport; (ii) has caused an Air Route Traffic Control Center (ARTCC) or airport to lose its radar; (iii) has caused a loss of both primary and backup facilities at any ARTCC or airport; or (iv) has affected an ARTCC or airport that is deemed important by the FAA as indicated by FAA inquiry to the provider’s management personnel.

35. We propose clarifying the circumstances under which providers must report outages potentially affecting airport communications. In doing so, we first observe that most of the reports filed in this category have concerned outages not significant enough to pose a substantial threat to public safety, particularly at smaller regional airports. In light of this observation, we seek comment on amending the definition of “special offices and facilities” to exclude all airports other than those designated “primary commercial service” airports in the NPIAS. This category includes the nation’s most heavily trafficked airports, where even minor

degradations in critical communications can pose grave threats to public safety and national security. To what extent would this proposed restriction of the scope of section 4.5(b) affect current reporting practice? Would it put the Commission at risk of failing to learn of serious outages?

36. We next seek comment on clarifying the types of communications that must be jeopardized for an outage to be held to “potentially affect” an airport. As an initial matter, we find compelling Sprint’s argument that only outages relating to critical communications should be included. The definition of an outage potentially affecting an airport proposed in the original Part 4 rulemaking proceeding (and discussed above) would exclude communications such as these not directly related the role of airports as critical transportation infrastructure. Should the Commission adopt this proposed definition? Are there circumstances this definition fails to cover under which an outage should be held to “potentially affect” an airport? Should the definition include all communications outages that could impact the safety and security of the airport, passengers, crew, or staff? On the other hand, should the Commission declare that outages potentially affecting airports include only those that affect FAA communications links? Are there are other ways of delineating this category of outages that we should consider? We also seek comment on the costs and benefits of clarifying the scope of outages that “potentially affect” airports as discussed above. In 2013, the Commission received 117 reports of airport-related outages that do not appear to have implicated critical communications and thus would likely not be reportable under any clarification of the rules considered above. We thus estimate that such a clarification would reduce the number of reports filed annually by 117. Assuming that each report requires two staff hours to complete, at \$80 per hour, this reduction in the number of reports filed would represent a cost savings of \$18,720. We seek comment on this

analysis.

37. Finally, we seek comment on the relationship between the general definition of “special offices and facilities” in part 4 and the special provisions for airports. Were the Commission to classify “special offices and facilities” using the familiar TSP framework, under which airports are eligible facilities, could it eliminate as redundant its separate requirements to report outages affecting airports? Would doing so make the rules clearer and more efficient, or would it create the risk of critical airport outages going unreported? Should the Commission instead broaden the scope of the airport-based reporting rules to include other modes of public transportation or even wider to other critical infrastructure, perhaps based on the “critical infrastructure sectors” identified by DHS? Does the TSP framework already adequately encompass such infrastructure for purposes of part 4 reporting? Do answers to any of these questions depend on whether “special offices and facilities” are defined to include all TSP-eligible facilities or only those facilities enrolled in the program?

38. Reporting Obligations of Satellite and Terrestrial Wireless Service Providers. The part 4 rules applicable to satellite and terrestrial wireless providers exempt these classes of providers from reporting outages potentially affecting airports. In carving out these exemptions, the Commission explained that “the critical communications infrastructure serving airports is landline based.” In separate Petitions, CTIA, Cingular Wireless, and Sprint each argue that wireless providers should be similarly exempt from reporting outages pertaining to all other “special offices and facilities.” CTIA argues in support of its petition that “the rationale for excluding wireless carriers from outage reporting for airports applies with equal force to all special offices and facilities.” That is, “[j]ust as with airports, wireless providers do not generally assign dedicated access lines to specific end users, and therefore do not have dedicated

access lines for the critical portions of any of the special offices and facilities.” The Commission notes, however, the continued growth in the use of wireless networks, including in and around facilities that may qualify as “special offices and facilities” under the current rules or under various proposals we are considering.

39. As we consider changes to the outage reporting rules that pertain to “special offices and facilities,” we seek comment on how such rules should apply to satellite and terrestrial wireless providers. Does airport communications infrastructure remain “landline based,” and are other facilities the Commission might classify as “special offices and facilities” served by a similar infrastructure? If so, should the Commission exempt wireless providers from any requirement to report outages potentially affecting “special offices and facilities,” as Petitioners request? Should we grant a similarly broad exemption to satellite providers? On the other hand, should the rules specify that a wireless or satellite provider must report outages potentially affecting any “special offices [or] facilities” to which it has assigned dedicated access lines? Are there other service arrangements that should give rise to an obligation to report wireless or satellite outages potentially affecting “special offices [or] facilities”? More generally, are there other circumstances where reporting from wireless or satellite providers on outages potentially affecting a special office or facility might provide the Commission with valuable information it would not receive otherwise? We also seek comment on the costs and benefits that would attend adoption of any rules in this area. We observe that wireless and satellite providers have historically filed few, if any, reports pertaining to outages affecting special offices and facilities. We thus estimate any further relaxation of their obligations to report such outages would not have an appreciable cost impact. We seek comment on this analysis.

F. Part 4 Information Sharing

40. Sharing of NORS Data with State Public Utility Commissions. Section 4.2 provides that reports filed in NORS are presumed confidential and thus withheld from routine public inspection. The Commission routinely shares NORS reports with the Office of Emergency Communication at DHS, which may “provide information from those reports to such other governmental authorities as it may deem to be appropriate,” but the Commission does not share NORS information directly with state governments. In the absence of routine access to NORS data, many states independently require communications providers to file network outage reports with their public utility commissions or similar agencies. The content of such reporting overlaps to a great extent with the information providers must report to the Commission under part 4.

41. In 2009, the California Public Utility Commission filed a petition (CPUC Petition) in which it requests that the Commission amend its rules to permit state agencies to directly access the NORS database. CPUC also informally requests that the Commission grant it password-protected access to those portions of the NORS database that contain data relating to communications outages in the State of California. CPUC argues that reliable access to network outage data is “necessary to perform its traditional role of protecting public health and safety through monitoring of communications network functionality.” Direct access to NORS, CPUC further argues, is the most effective means of obtaining such information. CPUC cites as precedent for its requested access to NORS the Commission’s Numbering Resource Optimization proceeding, in which the Commission divulged confidential telephone numbering data to States on the condition that they have adequate protections in place to shield the information from public inspection.

42. Granting states access to NORS data on a confidential basis could advance compelling state interests in protecting public health and safety in an efficient manner. We further observe that none of the commenters on CPUC’s petition made the case that such sharing would be unworkable in practice or would undermine the core purposes of NORS. Accordingly, we propose granting states read-only access to those portions of the NORS database that pertain to communications outages in their respective states. In advancing this proposal, we reaffirm our view that NORS data should be presumed confidential and shielded from public inspection. We thus propose that, in order to receive direct access to NORS, a state must certify that it will keep the data confidential and that it has in place confidentiality protections at least equivalent to those set forth in the federal Freedom of Information Act (FOIA). We seek comment on defining the term “State” for purposes of this proposal to include the District of Columbia, U.S. territories and possessions, and Tribal nations. We also find that rulemaking is the appropriate vehicle for deciding this issue, and thus hold in abeyance CPUC’s informal request for access to California-specific NORS data, pending the completion of this rulemaking.

43. We seek comment on the foregoing proposal. How can the FCC ensure that the data is shared with officials most in need of the information while maintaining confidentiality and assurances that the information will be properly safeguarded? Should personnel charged with obtaining the information be required to have security training? Should the identity of these individuals be supplied to the FCC? Should states be required to report or be penalized for breaches of the confidentiality of information obtained from NORS? Should a provider be permitted to audit a state’s handling of its outage data? Should states be granted access to NORS data only on the condition that such access replace any separate outage reporting required under state law? Should NORS allow the placement of caveats with respect to the sharing of any data

elements?

44. We also seek comment on limitations on states' use of NORS data. When outage information is provided to state public officials or state public utility commissions, should the state be required to notify the FCC and service providers if the state seeks to share the data with parties outside its direct employ? Should states' use of NORS data be restricted to activities relating to its "traditional role of protecting public health and safety?" If so, what activities does this role encompass, and how should the Commission enforce any such limitation on states' use of the data? We seek comment on exactly what information should be shared with state officials. Should states be granted access to the notification, initial report and final reports? Should providers' outage coordinators' contact information be redacted before the information is shared with the states? Finally, we seek comment on the costs and benefits of sharing state specific NORS outage data with state entities. We believe that the proposed sharing of NORS data with states would not have an appreciable cost impact. We seek comment on this assumption. What is the best way to balance security and convenience with the costs and benefits to all involved parties?

45. Federal Agency Requests to Access NORS. The Commission also has received occasional requests from agencies other than DHS for access to NORS data. Thus far, we have provided the information only to DHS, which may share relevant information with other federal agencies at its discretion. However, we recognize the validity of requests from other federal partners to have their own direct access to the NORS database when these requests are made for national security reasons. Accordingly, we propose entertaining requests from other federal agencies for access to NORS data, and acting upon such requests on a case-by-case basis. We seek comment on this proposed approach to handling such requests. Should there be limitations

on DHS access or access by other federal agencies? Under what circumstances should this information be shared? Should the entities seeking NORS data specify how they intend to use the information, and if, or with whom, they intend to share it? Should they be required to demonstrate that sufficient safeguards are in place to ensure that the information be seen only by necessary parties? Should such sharing be undertaken in accordance with the procedures established under section 0.442 of the Commission's rules for the sharing of presumptively confidential information with other federal agencies?

46. Information Sharing with the National Coordinating Center for Communications (NCC). We next seek comment on the sharing of information collected under part 4 with the NCC. Would access to outage data collected in NORS contribute to the NCC's mission? Under what terms, if any, should such access be provided? Should the Commission instead continue to leave to the discretion of individual providers what network outage information they choose to share with the NCC? Would the Commission's provision of Part 4 information to the NCC discourage industry participation in that program? Is there a subset of data collected under Part 4 that the Commission could share with the NCC while upholding the confidentiality presumption established for Part 4? Would the sharing of network outage data in aggregate or generalized form be useful to the NCC? Finally, we assume that such information sharing would not have any appreciable cost impact. We seek comment on this assumption.

II. PROCEDURAL MATTERS

A. Regulatory Flexibility Act

47. As required by the Regulatory Flexibility Act of 1980 (RFA), the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) for this NPRM, of the possible significant economic impact on small entities of the proposals addressed in this document. The

IRFA is set forth as Appendix D. Written public comments are requested on the IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments indicated on the first page of this NPRM. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this NPRM, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).

B. Paperwork Reduction Act of 1995

48. The NPRM in this document contains proposed new information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995, Public Law 104-13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), we seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.

C. Ex Parte Rules

49. The proceeding this NPRM initiates shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's ex parte rules. Persons making ex parte presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral ex parte presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the ex parte presentation was made, and (2)

summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during ex parte meetings are deemed to be written ex parte presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written ex parte presentations and memoranda summarizing oral ex parte presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's ex parte rules.

D. Comment Filing Procedures

50. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments should be filed in PS Docket No. 15-80. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See Electronic Filing of Documents in Rulemaking Proceedings, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the

caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

III. ORDERING CLAUSES

51. ACCORDINGLY IT IS ORDERED that, pursuant to the authority contained in sections 1, 4(i), 4(j), 4(o), 201(b), 214(d), 218, 251(e)(3), 301, 303(b), 303(g), 303(r), 307,

309(a), 309(j), 316, 332, 403, 615a-1, and 615c of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i)-(j) & (o), 201(b), 214(d), 218, 251(e)(3), 301, 303(b), 303(g), 303(r), 307, 309(a), 309(j), 316, 332, 403, 615a-1, and 615c, this Notice of Proposed Rulemaking, Second Report and Order and Order on Reconsideration in ET Docket 04-35 and PS Docket 15-80 is ADOPTED, effective thirty (30) days after the date of publication in the Federal Register.

52. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of the Notice of Proposed Rule Making, including the Initial Regulatory Flexibility Analysis and the Final Regulatory Certification, to the Chief Counsel for Advocacy of the U.S. Small Business Administration.

IV. INITIAL REGULATORY FLEXIBILITY ANALYSIS

A. Need for, and Objectives of, the Proposed Rules

53. The NPRM seeks comment and information on a variety of issues related to the Commission's Part 4 outage reporting rules, including proposals to:

- Clarify the requirement to report outages that significantly degrade communications to Public Safety Answering Points (PSAPs);
- Adopt requirements to report widespread call failures that result from radio access network (RAN) congestion;
- Replace the current threshold (based on "DS3 minutes") for reporting major network outages with a threshold based on optical (i.e., OC-3) transmission rates;
- Require reporting of DS3 Simplex outages that persist for less than five days but for more than forty-eight hours;

- Adopt a common, technologically neutral method for calculating the number of wireless users “potentially affected” by an outage;
- Clarify the reporting metric for estimating the number of “potentially affected” wireless users for outages that affect Public Switched Answering Points (PSAPs);
- Update the requirements that mandate reporting of outages that affect airports and other “special offices and facilities”; and
- Grant NORS access to state government agencies upon request and certification that the state has measures in place to protect the data from public disclosure.

54. The Commission traditionally has addressed reliability issues by working with communications service providers to develop and promote best practices that address vulnerabilities in the communications network, and by measuring the effectiveness of best practices through outage reporting. Under the Commission’s current rules, the outage reporting process has been effective in improving the reliability, resiliency and security of communications services. Commission staff collaborates with individual providers and industry bodies to review outage results and address troublesome areas, and these efforts have resulted in dramatic reductions in outages. The aim of updating the outage reporting rules is to further improve the reliability, resiliency and security of communications services.

B. Legal Basis

55. The legal basis for the rules proposed in the NPRM are contained in sections 1, 2, 4(i)-(k), 4(o), 218, 219, 230, 256, 301, 302(a), 303(f), 303(g), 303(j), 303(r), 403, 621(b)(3), and 621(d) of the Communications Act of 1934, 47 U.S.C. 151, 152, 154(i)-(k), 154(o), 218, 219, 230, 256, 301, 302a(a), 303(f), 303(g), 303(j), 303(r), 403, 621(b)(3), and 621(d), and section 1704 of the Omnibus Consolidated and Emergency Supplemental Appropriations Act of 1998,

44 U.S.C. 3504.

C. Description and Estimate of the Number of Small Entities to Which Rules Will Apply

56. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the proposed rules, if adopted. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

1. Wireline Providers

57. Incumbent Local Exchange Carriers (Incumbent LECs). Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers, which are establishments primarily engaged in operating or providing access to transmission facilities and infrastructure that they own or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007, show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had had employment of 1,000 employees or more. Thus under this category and the associated small business size standard, the majority of these incumbent local exchange service providers can be

considered small.

58. The Commission has included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, inter alia, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.” The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope. The Commission has therefore included small incumbent LECs in this RFA analysis, although the Commission emphasizes that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

59. Interexchange Carriers. Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers, which are establishments primarily engaged in operating or providing access to transmission facilities and infrastructure that they own or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census Bureau data for 2007 show that there were 3,188 firms in this category that operated for the entire year. Of this total, 3,144 had employment of 999 or fewer, and 44 firms had employment of 1,000 employees or more. Thus, under this category and the associated small business size standard, the Commission estimates that the majority of interexchange carriers are small entities that may be affected by our proposed action.

2. Wireless Providers – Fixed and Mobile

60. Wireless Telecommunications Carriers (except Satellite). Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category. This category is composed of establishments that operate and maintain switching and transmission facilities to provide communications via the airwaves. As holders of spectrum licenses, these establishments use the licensed spectrum to provide services, such as cellular phone services, paging services, wireless Internet access, and wireless video services. The SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. For the category of Wireless Telecommunications Carriers (except Satellite), Census data for 2007, which supersede data contained in the 2002 Census, show that there were 1,383 firms that operated that year. Of those 1,383, 1,368 had fewer than 100 employees, and 15 firms had more than 100 employees. Thus under this category and the associated small business size standard, the majority of firms can be considered small. Similarly, according to Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services. Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees. Consequently, the Commission estimates that approximately half or more of these firms can be considered small. Thus, using available data, we estimate that the majority of wireless firms can be considered small.

3. Satellite Service Providers

61. Satellite Telecommunications Providers. Two economic census categories address the satellite industry. The first category, Satellite Telecommunications, has a small business size standard of \$15 million or less in average annual receipts, under SBA rules. The

second category is “All Telecommunications Providers,” which is discussed in a separate section.

62. The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.” Census Bureau data for 2007 show that 512 Satellite Telecommunications firms that operated for that entire year. Of this total, 464 firms had annual receipts of under \$10 million, and 18 firms had receipts of \$10 million to \$24,999,999. Consequently, the Commission estimates that the majority of Satellite Telecommunications firms are small entities that might be affected by our action.

4. Cable Service Providers

63. Cable Companies and Systems. The Commission has developed its own small business size standards for the purpose of cable rate regulation. Under the Commission’s rules, a “small cable company” is one serving a total of 400,000 or fewer subscribers over one or more cable systems. Industry data indicate that all but ten cable operators nationwide are small under this size standard. In addition, under the Commission’s rules, a “small system” is a cable system serving 15,000 or fewer subscribers. Industry data indicate that, of the 6,101 systems nationwide, 4,410 systems have less than 10,000 subscribers, and an additional 258 systems have between 10,000-19,999 subscribers. Thus, under this standard, most cable systems are small.

64. Cable System Operators. The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is “a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the

aggregate exceed \$250,000,000.” The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate. Industry data indicate that, of 1,076 cable operators nationwide, all but ten are small under this size standard. We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

5. All Other Telecommunications

65. The 2007 NAICS defines “All Other Telecommunications” as follows: “This U.S. industry comprises establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.” This category has a size standard of \$25 million or less in annual receipts.¹ Census Bureau data for 2007 show that there were a total of 2,383 firms that operated for the entire year.² Of this total, 2,305 firms had annual receipts of under \$10 million and 41 firms had

¹ Id.

² EC0751SSSZ4, Information: Subject Series – Establishment and Firm Size: Receipts Size of Firms for the United States: 2007 Economic Census, U.S. CENSUS BUREAU, http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_51SSSZ4&prodTtype=table (last visited Mar. 27, 2015).

annual receipts of \$10 million to \$24,999,999.³ Consequently, we estimate that the majority of All Other Telecommunications firms are small entities that might be affected by our action.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements

66. The rules proposed in the NPRM would require telecommunications providers to report those outages that meet specified NORS Notice and Reports reporting threshold criteria, largely determined by the number of end users potentially affected by the outage and the duration of the outage. In the Commission's experience administering NORS, small companies only rarely experience outages that meet the NORS Notice and Reports reporting threshold criteria. Accordingly, while some of the rule revisions proposed in the NPRM would likely decrease the number of outages reported annually, while others may lead to increases, we would expect these impacts to be less pronounced for smaller entities. But notwithstanding any revisions we propose to the Part 4 reporting requirements, we expect that telecommunications providers to continue to track, investigate, and correct all of their service disruptions as an ordinary part of conducting their business operations and maintenance- even for service disruptions far too small to trigger a requirement to report. Telecommunications providers through internal network operation center personnel already file Notifications and Reports, typically an online form less than three pages in length based on data routinely collected and monitored by this same personnel. The form is designed to allow small entities to input information without the need for specialized professional, although the telecommunication providers may choose to hire consultants or engineers to conduct technical aspects, or an attorney to review compliance with applicable rules. Therefore, we believe the only burden associated with the reporting requirements contained here will be the time required to complete

³ Id. The remaining 14 firms had annual receipts of \$25 million or more. Id.

any additional Notifications and Reports following the proposed changes. In this IRFA, we therefore seek comment on the types of burdens telecommunications providers will face in complying with the proposed requirements. Entities, especially small businesses and small entities, more generally, are encouraged to comment and quantify the costs and benefits of the proposed reporting requirements.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

67. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

68. The proposed reporting requirements are minimally necessary to assure that we receive adequate information to perform our statutory responsibilities with respect to the reliability of telecommunications and their infrastructures. Also, we believe that the magnitude of the outages needed to trigger the reporting requirements are sufficiently high as to make it unlikely that small businesses would be impacted significantly by the proposed rules, and will, in fact, in many instances find their burden decreased by the newly proposed reporting thresholds. The Commission considered other possible proposals and now seeks comment on the proposed reporting thresholds and the analysis presented.

F. Federal Rules that May Duplicate, Overlap, or Conflict With the Proposed Rule

69. None.

List of Subjects in 47 CFR Part 4

Airports, Communications common carriers, Communications equipment, Disruptions to communications, Network outages, Reporting and recordkeeping requirements, Telecommunications.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch,
Secretary.

Proposed Rules

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 CFR part 4 as follows:

PART 4 – DISRUPTIONS TO COMMUNICATIONS

1. The authority citation for part 4 is revised to read as follows:

Authority: Sec. 5, 48 Stat. 1068, as amended; 47 U.S.C. 154, 155, 201, 251, 307, 316.

2. Section 4.2 is revised to read as follows:

§ 4.2 Availability of reports filed under this part.

Reports filed under this part will be presumed to be confidential. A State government may file a request with the Public Safety and Homeland Security Bureau for read-only access to information filed under this part concerning outages that occur within the State. The Public Safety and Homeland Security may grant the request upon certification that the State will maintain the confidentiality of the information and that it has in place confidentiality protections equivalent to those of the Freedom of Information Act to protect the information from public inspection. Public access to reports filed under this part may be sought only pursuant to the procedures set forth in 47 CFR 0.461. Notice of any requests for inspection of outage reports will be provided pursuant to 47 CFR 0.461(d)(3).

3. Section 4.5 is amended by revising paragraph (e)(1) to read as follows:

§ 4.5 Definitions of outage, special offices and facilities, and 911 special facilities.

* * * * *

(e) * * *

(1) There is a partial or complete loss of communications to PSAP(s) potentially affecting at least 900,000 user-minutes and: The failure is neither at the PSAP(s) nor on the premises of the

PSAP(s); no reroute for all end users was available; and the outage lasts at lasts 30 minutes or more; or

* * * * *

4. Section 4.7 is amended by revising paragraph (d) to read as follows:

§ 4.7 Definitions of metrics used to determine the general outage-reporting threshold criteria.

* * * * *

(d) OC3 minutes are defined as the mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of previously operating OC3 circuits or their equivalents that were affected by the outage.

* * * * *

§ 4.9 [Amended]

5. Section 4.9 is amended by removing the term “DS3” and adding, in its place, the term “OC3” in paragraphs (a)(2), (a)(4), (b), (e)(3), (e)(5), (f)(2), and (f)(4), and removing the number “1,350” and adding, in its place, the number “667” in paragraphs (a)(2), (b), (e)(3), and (f)(2).

§ 4.13 [Removed]

6. Section 4.13 is removed.
7. [FR Doc. 2015-14687 Filed: 6/15/2015 08:45 am; Publication Date: 6/16/2015]